

# Akhil Reddy Edla

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## PROFESSIONAL SUMMARY

Data Engineer with 3+ years of experience designing, building, and optimizing end-to-end data pipelines, lakehouse architectures, and cloud analytics platforms on AWS and GCP. Skilled in real-time and batch data processing using Spark, PySpark, Kafka, Pub/Sub, SQL, and Python, handling millions to billions of records efficiently. Experienced in ETL orchestration with Airflow, CI/CD deployment, and DevOps practices, ensuring scalable, reliable, and maintainable workflows. Adept at collaborating with business and analytics teams to deliver analytics-ready datasets, BI dashboards, and actionable insights, driving data-driven decision-making and operational efficiency.

## TECHNICAL SKILLS

**Data Engineering & ETL:** Airflow, dbt, Apache NiFi, Talend, AWS Glue, Cloud Data Pipelines, Data Lake/Lakehouse design, ETL orchestration, Event-driven pipelines.

**Big Data & Streaming:** Spark (PySpark, Spark SQL, Spark Streaming), Hadoop, Hive, Kafka, Delta Lake, Flink, Snowflake.

**Cloud Platforms:** AWS (S3, Glue, Redshift, Lambda, EMR, EC2), GCP (BigQuery, Cloud Functions, Cloud Run, DataStream, Pub/Sub, Composer), Azure (Data Factory, Synapse, Blob Storage).

**Programming & Scripting:** Python (Pandas, NumPy, PySpark), SQL, Shell Scripting, Java.

**Databases & Warehouses:** PostgreSQL, SQL Server, Oracle, BigQuery, Snowflake, Redshift, MySQL.

**DevOps & Infrastructure:** Docker, Kubernetes, Terraform, Jenkins, Git/GitHub, CI/CD pipelines, Cloud Monitoring and Logging.

**DataOps & Observability:** Data Quality frameworks, Logging & Monitoring pipelines, Metadata management, Data Governance.

## PROFESSIONAL EXPERIENCE

### Data Engineer

Oct 2024 - Present

#### CenterPoint Energy | Evansville, IN

- Built and optimized ETL pipelines using Python, PySpark, and SQL to process structured and unstructured datasets, enhancing analytics query speed by 40% for business teams.
- Leveraged GCP Pub/Sub, Cloud Functions, Cloud Run, and DataStream to stream millions of events daily, enabling near real-time insights for enterprise dashboards.
- Automated replication of 150 Coupa tables from Snowflake to BigQuery, ensuring reliable daily updates while cutting manual refresh work by 70%.
- Integrated SAP SLT workflows with GCP infrastructure to maintain synchronized enterprise data, improving consistency across downstream reporting systems.
- Developed Adobe Analytics ingestion pipelines into GCS and BigQuery, accelerating marketing and product reporting with real-time visibility.
- Created Power BI dashboards to monitor pipeline performance and data quality, strengthening transparency and trust in key datasets.
- Partnered with business teams to optimize workflows and data models, delivering actionable datasets that reduced reporting delays by 30%.
- Implemented CI/CD pipelines using GitHub, Cloud Build, and Terraform, streamlining deployments and reducing production errors by 60%.

### Data Engineer

Dec 2023 - Oct 2024

#### Fifth Third Bank | Evansville, IN

- Engineered batch and streaming ETL pipelines on AWS using Python, PySpark, and Airflow, improving data availability for analytics by 45%.
- Developed Spark Structured Streaming pipelines with Kafka, enabling real-time fraud detection and cutting incident response times in half.
- Automated data validation processes with Python and AI-assisted CoPilot, increasing pipeline reliability and throughput by 70%.
- Designed and executed POCs for fraud and opioid analytics, demonstrating measurable operational improvements through real-time PySpark workflows.
- Migrated on-premises SQL Server datasets to S3 and Redshift, reducing query runtimes by 50% and supporting scalable analytics pipelines.
- Exposed curated datasets via APIs, standardizing data delivery and enabling faster cross-team analytics consumption.
- Orchestrated Airflow DAGs for scheduled and event-driven workflows, reducing pipeline failures by 40% while improving operational efficiency.
- Implemented proactive monitoring and alerting frameworks, achieving over 99% pipeline uptime and ensuring reliable reporting.

### Associate Data Engineer

Jul 2021 - Dec 2022

#### Infogain | Bangalore, India

- Designed high-frequency ETL pipelines using Python multiprocessing, Kafka, Spark, and Airflow, processing millions of API calls daily and lowering ingestion latency by 60%.
- Built event-driven frameworks with Spark Structured Streaming to make real-time data immediately available for business dashboards.

- Applied Pytest-based automation for data validation, raising reporting accuracy to 99% and reducing manual data checks.
- Streamlined BigQuery and Snowflake data models, accelerating report generation by 40% and improving analytics delivery.
- Containerized ETL pipelines with Docker and deployed on GCP, increasing workflow scalability and maintainability.
- Developed batch and streaming pipelines integrating GCS, BigQuery, and Snowflake, enabling rapid access to high-quality datasets.
- Maintained comprehensive documentation and knowledge transfer, reducing onboarding time for new engineers by 50%.
- Optimized Spark jobs and SQL queries to improve pipeline efficiency by 40%, lowering overall cloud resource costs.

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## PROJECTS

### Snowflake to BigQuery Migration

- Executed migration of enterprise datasets from Snowflake to BigQuery using Cloud Run batch jobs, optimizing query performance and reducing operational costs.
- Implemented schema mapping, incremental data loads, and validation checks to ensure data accuracy and consistency across platforms.
- Leveraged SQL, Python, and Google Cloud monitoring tools to automate workflows and track data migration progress efficiently.

### SAP HANA Data Ingestion Pipeline

- Built a scalable ingestion pipeline to transfer SAP HANA data into BigQuery using SQL queries provided by the reporting team.
- Designed ETL transformations with Python and Cloud Composer to harmonize data for reporting and analytics needs.
- Scheduled automated data loads and implemented error-handling mechanisms to maintain reliability and timeliness.

### Real-Time SQL Server to BigQuery Replication

- Developed a real-time data replication pipeline from SQL Server to BigQuery using DataStream for low-latency analytics.
- Configured CDC (Change Data Capture) processes, schema mapping, and data partitioning to optimize query performance.
- Monitored streaming pipelines with Cloud Monitoring and implemented alerting for anomalies to ensure continuous data availability.

### Adobe Analytics Data Automation

- Automated ingestion of Adobe Analytics data feeds into BigQuery using Python and GCS integration to enable advanced reporting.
- Developed data cleaning, transformation, and aggregation workflows for digital marketing insights.
- Scheduled pipelines using Cloud Scheduler and monitored ETL processes to ensure timely delivery of analytics-ready datasets.

### Event-Driven GCS to BigQuery Ingestion

- Created a Cloud Function triggered by Eventarc to load files from Google Cloud Storage into BigQuery in real time.
- Implemented dynamic table creation, data validation, and logging to handle diverse file formats and ensure accuracy.
- Leveraged Python, BigQuery APIs, and cloud-native event triggers to streamline ingestion and reduce latency for analytics teams.

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## EDUCATION

### Master of Science in Computer Science

University of Central Missouri | Warrensburg , MO

Jan 2023 - May 2024

### Bachelor of Technology in Computer Science

Jawaharlal Nehru Technological University | Hyderabad , India

Aug 2018 - May 2022

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## CERTIFICATIONS

- GCP Data Engineer Professional Certification
- Cloud Practitioner - **AWS**
- Scrum/Agile Methodology Certification- **AGILE**
- Data Engineering with Python - **Coursera**
- Big Data Analytics Specialization - **Coursera**
- Power BI for Data Analysts - **LinkedIn Learning**